IT Unit 3

Topic 1

# Organisations & Data Management

**Database design tools, p 36**

1. Explain why design is an important step in creating a solution.

Design is important as it allows us to plan ahead before creating the database by understanding the scope of the solution. Design also allows evaluation of the matierals and restrantes of the soloution through the use of layout diagrams and mockups.

**Naming conventions**

1. What is the importance of planning out naming conventions before you begin developing the solution?

Naming conventions are important and used in solutions as the make files easily find and identified by a developer or user

List examples of naming conventions for a database.

Prefix’s are used to shorten Queries, tables, forms and reports

Spaces and underscores are avoided

Names are still descriptive

1. What is to be avoided and how is readability assisted?

Spaces and underscores and avoided but to counter act the hinder this is a mixture of uppercase and lowercase letters are used. For example ‘Table customers’ becomes ‘TblCustomers’

1. Describe the purpose of the following design tools:
   1. data dictionary

Data dictionaries are used to formailize the fields and their data type, format, size for a new database while giving a developer a precise explanation of how each field should be set up in each table.

* 1. data structure diagram

The purpose of a data structure diagram to indicate the relationships that exist between the specific tables of a planned database so that the developer will know how the tables ought to be linked.

* 1. entity-relationship diagram

a diagram that shows the interrelationships between different entities and their attributes. One to One visually show ect….

* 1. IPO chart

Diagrams used to identify inputs, outputs and the processing steps required to transform the inputs into the outputs

* 1. Query design and layout diagram

the design of a query should specify the fields to be included and the tables to which they belong. The design will also include the criteria for the query and how the resulting records are to be ordered.

Layout diagram is a hand drawn sketch that shows the elements to be included on an input form: diagram would indicate the placement of fields and labels, the font to be used and any graphics or other elements to be included

1. What is the purpose of test data? What should be considered when developing test data?

Give some examples of electronic validation that can be established using database software

Test data is used to ensure that the solution with test data. Test data should test all aspects of the solution including identification and handling of unreasonable, missing or incorrect data (validation), formulas and summary totals. is functioning correctly by comparing it to what was planned in the design stage. Examples: existence checks, datatype check, range checks, grammar checks, spelling checks